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APR 23 MAY 23 1924



Stroudsburg, Pa.

U. S. DEPT. OF AGRICULTURE
FOREIGN PLANT
★ MAY 22 1924 ★
QUARANTINES
FEDERAL HORTICULTURAL BOARD



A glimpse of the grounds about our office, showing *Rhododendron maximum* plantings as far as the eye can see. Picturesque at any time



ONE of America's native plants are more beautiful than the *Rhododendron*, *Azalea*, and *Kalmia*, whether in their original habitat of the Appalachian section, or when transferred and correctly used for ornamental purposes.

Of their beauty of flower and foliage we need make no comment. Your real concern is, where can dependable plants be secured, at reasonable prices, with simple, comprehensive directions for their inexpensive planting and later care, to the end that they will be a continuous beauty and a constant source of pleasure.

An enthusiastic love of our work, the experience gained from twenty-two years of personal activity as collectors, and the experiments and results incident to building up our nursery, acquaint us with those methods best adapted to wise planting and subsequent care.

Anticipating the embargo of 1919, that excluded the importation from foreign countries of plants with earth to the roots, we began the planting of roots, seedlings, and plants of this family only, on an extensive scale at Stroudsburg. Our cultivation is recognized, by those who know, as leading in the quality of plants, and in quantities from which we can supply carloads with no appreciable loss of material or diminution of quality.

The range of habitat of the *Rhododendron*, *Kalmia*, and *Azalea* is an extended one, covering practically all the Atlantic States. There are very considerable areas in these states in which they do not grow, due to lime in the soil, and other adverse causes.

Azalea and *Kalmia* are found from the swamps and river banks of Florida to the hills of Nova Scotia; and *Rhododendron* from the Carolinas to Massachusetts. Indicating this range of distribution in varied climates more specifically, *Rhododendrons* are found sparingly in some mountain sections of Massachusetts, and western New York, near Lake Erie; sparingly in the pine barrens of New Jersey, and the tobacco sections of North Carolina. Great thickets very near the seacoast of Rhode Island rival the most luxuriant growths found in the Carolina mountains. This wide distribution should conclusively indicate to you that they will withstand extreme cold as well as almost semi-tropical conditions. However, they reach near perfection in the higher elevations of the Blue Ridge and Alleghanies, due to the abundant moisture and other favorable conditions.

We are asked if the plants from the southern Appalachians are hardy in the North and West. As a reminder we would say that the mountains of the Virginias and Carolinas are the highest, east of the Rockies. In North Carolina there are twenty peaks higher than Mount Washington, New Hampshire, and twenty-five more that fall short only by a couple of hundred feet. It is in such sections, where the rigors of winters are as severe as in the extreme northern states, that we collect them and also secure young stock for propagating. We state, with no fear of contradiction, that the *Rhododendron*, *Kalmia*, and *Azalea* from our collecting areas are equally as hardy as those of New York or Pennsylvania.

To secure the several varieties of *Rhododendrons* (5) and of *Azaleas* (7), with their blooming period and diverse coloring, extending from early May to late July, we must of necessity go where

they are found, to the southern Appalachians. A pleasing characteristic of these native plants is the varied shades of color in one variety.

Successful plantings of pleased customers cover a wide range, namely, Buffalo, the Adirondacks, Vermont, Maine, and Newfoundland; Cleveland, Cincinnati and many other Ohio points; Michigan, Indiana, and as far west as California; south to Charlotte and Greensboro, N. C., Atlanta, Ga., and Charleston, S. C.; and within 500 feet of the ocean exposure on the New Jersey coast.

The vast thickets of original-growth of *Rhododendron maximum* in their native habitat indicates the seclusion from sun and wind this variety enjoys.

Broad-leaved evergreens transpire through the leaves, and when excessively cold the leaf will curl to reduce transpiration (see illustration), and a smaller surface being exposed to the winds and light, the evaporation is curtailed below the danger point. As the cold moderates, the leaf uncurls gradually, but if in the strong sun, the uncurling is too rapid, causing possible injury to the leaf-structure. Excessive transpiration is induced to a greater degree if plants are placed where they are swept by strong winds. The reserve energy is prematurely used up, and "winter-kill" is the result.

We have yet to find an American *Rhododendron* in native environment that was killed by cold. "Winter-kill" is a drying out, as just indicated.



In severe cold or in drought, the *Rhododendron* leaves curl lengthwise and droop, hanging perpendicularly, thereby reducing the exposure to sun and wind, lessening transpiration; it is their "safety first" device.

In summer, direct sunlight and strong winds produce an almost like effect, as the evaporation through the leaf (particularly *Rhododendron maximum*) cannot keep pace with the moisture supply through the leaf and stem from the roots, and as a result the leaf burns.

The roots of these plants grow very near the surface, seeking acidity and moisture. Acidity is the only needed fertilizer, and is derived from the fallen leaves and twigs of the forest. These form a mulch also, which keeps the roots moist and cool in summer, reduces the frozen root period by keeping the ground warm in early winter, and prevents the warm sun in March from heating the ground, which would induce a premature flow of sap.

Nature provides an adequate reserve of energy in the stems and leaves to carry the plants through the long winter when the roots are frozen. This reserve is sufficient for their requirements when in their habitat on the north side of hills and mountains, in loose, porous soil, with a covering of leaves, and among the rocks, trees, and brush.

It is important for the plants that the soil conditions be right or are made right, and then the simple direc-

tions given in this booklet followed, avoiding the things these plants object to.

What to Avoid and What to Supply

One of the chief reasons for selecting the present location for La Bars' *Rhododendron* Nursery was a desire to duplicate the ideal conditions under which Broad-leaved Evergreens naturally grow. It is of equal importance that each planter give them as nearly as possible the conditions they will appreciate. Their requirements are simple, if understood. The observations and directions which are given in this booklet will enable anyone to supply such conditions.

Sun and Wind For a general rule, do not plant *Rhododendron maximum* in strong sun and wind, but certain favorable conditions for moisture may modify these suggestions. *Rhododendron catawbiense* is not so exacting, and the two varieties of *R. carolinianum* and the *R. minus* (true *Punctatum*) are even less so. *Leucothoe catesbaei*, *Andromeda floribunda*, and *Kalmia*, by reason, of their small leaves, transpire less, and will also flourish under these conditions.

All Broad-leaved Evergreens unduly exposed to adverse conditions of extreme sun and wind will produce leaves that will yearly diminish in size and incline to a sickly yellowish green, instead of the rich green common to these plants when under happy conditions. Azalea and High-Bush Blueberry welcome plenty of sunlight. In sections subjected to long arduous winters, we advise for exposed, wind-swept situations, wind-breaks of boards, burlap, cornstalks, or some like material. It is not injury from the cold that is to be guarded against, but the transpiration induced by the sun and wind.

Mulch All the above-mentioned plants must at all times be mulched with dead leaves or old sawdust (preferably hardwood) or some vegetable matter. If you object to the leaves on account of the untidy appearance, and your ground surface is flat, old hardwood sawdust is an ideal mulch. The important thing is mulch, *and mulch aplenty*, all year round, using, if necessary, oat, rye, wheat, or buckwheat straw, but refrain from using fresh stable manure. If this mulch, for any reason, packs and prevents the passing of air to the soil, which would sour as a result, it should be shaken up, but the soil itself should not be disturbed. Avoid using fresh mown grass as a mulch until it has dried out.

Watering It is our desire to impress upon you the positive importance of moisture, and that the roots should never be allowed to become dry. Water in the fall is as necessary as at any other time, so that the plants may store up the required energy to carry them through the winter, when the roots are frozen, and the transpiration demands are increased by reason of the absence of leaves on the protecting trees, permitting more light and wind to reach them. "Hilling" earth around the stems of the plants sheds water away from the roots; this should not be permitted. Neither should the roots be buried deeply. A shallow, basin-like depression should be left around the stems to hold the water until it can soak away.

Drainage It has been our observation as collectors that all these plants thrive in what is considered as the poorest soil, provided they have drainage at the roots, and that the soil is acid. The importance of these two underlying fundamentals cannot be too strongly stressed, as upon these conditions depend the successful growing of Rhododendrons. They thrive in gravel, shale, rocks, sandy loam, and swampy places. When found in swamps and low places, the roots are elevated above the water-line with free and adequate drainage. Your conditions probably are correct, but a simple method whereby you can ascertain if your soil has proper drainage is to excavate $1\frac{1}{2}$ feet deep, fill the hole with water, and if it fails to disappear in a reasonable time, some remedy is necessary.

If you require better drainage, we can lay down no fixed rule for its provision, since varying situations or conditions require individual determination. The roots of these plants grow near the top of the ground, the largest not being over a foot deep, and some but 6 inches, or even less. We can only advise in a general way that the excavation need be but $1\frac{1}{2}$ to $2\frac{1}{2}$ feet deep, with one-third of the depth filled with stone, the remainder with earth, and that a tile-drain lead from a little below the top of the stone, to carry off the surplus water. Properly planted, as herein outlined, Rho-



A scene in our nurseries. Ideal Rhododendron maximum conditions; the trees provide the filtered sunlight so essential to their best development



Effective naturalistic landscaping produced by La Bars' Rhododendrons on the grounds of Alvin C. Spindler, Esq., Edgewood, Pa.

dodendrons require less attention than many other shrubs. Failures are frequently attributed to the plants, but they are more likely caused by one of the mistakes it is the purpose of this booklet to point out. None of them require coddling.

Lime Soil We do not advocate expensive soil-mixtures, except in unusual conditions. Lime soil being hostile, it must be corrected, and the simplest and most inexpensive method is the use of ground aluminum sulphate, sprinkled evenly over the surface and allowed to leach into the soil. Use caution in the application of this material in mixed plantings, however, as some plants, particularly lilacs, would suffer. The quantity of aluminum sulphate to be used depends on the lack of acidity, but one to two pounds to a square yard of surface would be beneficial. The lime in the ground may be from unsuspected causes, as sometimes garden soil may have had an application of lime, become impregnated by plaster from building operations, by irrigating with hard water, or from numerous other causes. Water containing lime should not be used in irrigating Rhododendrons or other plants of this family. If soft water is not readily available, use one-half pound of the aluminum sulphate dissolved in 40 gallons of water to counteract the lime in the water.

Aluminum sulphate may be purchased from the Pennsylvania Salt Co., Widener Building, Philadelphia, Pa., and the Superior Chemical Co., Joliet, Ills.

We will test your soil if you will send us a 2-ounce sample, and make a report, with no charge or obligation to you.

Columbia Bank Bldg., Pittsburgh, Pa., November 13, 1923.

MR. F. S. LA BAR, Stroudsburg, Pa.

Dear Mr. La Bar: In response to your inquiry, I am pleased to inform you that out of the fifteen hundred Rhododendrons which I purchased from you last spring I lost only six, and this loss was due to improper planting and not the condition of the plants. The root surface of the plants that I lost were arched and I failed to fill in with earth the vacancy caused by the arch, which caused the plant to dry out and die.

I am also sending several photographs of the plants as I grouped them, which might be of some benefit to you.

A golf course in which I am interested will no doubt have a ten-carload requirement for your Rhododendrons this spring. I also will require one carload to finish my planting.

Very truly yours,

ALVIN C. SPINDLER.

Acidity Lime in the soil, as against acidity of the soil, is of such importance that we are publishing the following table of soil-acidity preferences, and the relative acidity requirements of the various species will be clearly evident. XX marks optimum values of largest number of tests; X frequently observed values, and x occasional values.

	SPECIFIC ACIDITIES					
	300	100	30	10	3	1
Rhododendron maximum	X	X	XX	X	x	x
Kalmia latifolia	X	X	XX	X	..	..
Rhodora canadensis	x	XX	x	x	..	..
Leiophyllum buxifolium	XX	x	..	..	..	..
Azalea nudiflora	x	X	XX	X	x	..
Azalea calendulacea	X	X	XX	..	..	..
Azalea rosea	x	x	XX	..	..	..
Azalea arborescens	..	..	XX	..	..	..
Azalea viscosa	X	x	x	..	..	..
Vaccinium corymbosum	X	X	XX	X	x	..

This table is from a paper on "Soil Acidity of Ericaceæ," from the Proceedings of the Academy of Natural Sciences of Philadelphia, April, 1920, by Dr. Edgar T. Wherry, U. S. Bureau of Chemistry.

To Dr. Frederick V. Coville, Botanist, U. S. Bureau of Plant Industry, and to Dr. Wherry, growers of these plants are greatly indebted for valuable information, the result of years of painstaking research.

Raise the acidities toward the optimum specific by the use of dead leaves (preferably oak), old hardwood sawdust, upland peat, and the addition of ground aluminum sulphate. At no time use pulverized limestone or bone-meal.

Do not plant so near buildings that rainfall cannot reach them. Planting too close to soft maples, hemlocks, spruces, and other trees whose roots come near the surface, absorbing the moisture, should be avoided. As the roots of all these plants seek the surface soil, do not use the hoe near the roots, but pull the weeds. Avoid manure, unless it be well-rotted cow-dung, otherwise the roots may be burned.

Pruning Pinch off the flower clusters as they wither, to conserve the plant strength and to prevent it from being expended in the development and ripening of the useless seed-pods, thus diverting this energy into the production of bloom for the following year. We do not advise pruning of *Rhododendron maximum* or *R. catawbiense*, but it can be done if understood. We would not venture to lay down rules for such pruning, however, as local conditions would govern the requirements. The terminal buds can be pinched out to cause the plant to branch sideways and thicken. This can be done also to the three other varieties of Rhododendron, and to Azaleas and Leucothoë, and these can be pruned when necessary.

Insects About the only enemy of this family of plants is the "lace bug," a gauzy-winged, small, delicate insect that clusters on the under side of the leaf, from which it sucks the plant-sap, causing brown patches that disfigure the upper surface. If placed in correct locations and right conditions are maintained, it is not likely that the plants will be bothered with this pest. If affected, give the plant more moisture, adequate acidity, shade or shelter, and as it becomes more healthy the infestation will disappear. However, if you wish to hasten the result, to lessen the drain on the recuperating plant, we recommend the following spray treatment:

One gallon of Sunoco Spray Oil to 50 gallons of water, to which add one-half pint of Black-Leaf 40. Apply when the bud cluster begins to open. Repeat about the middle of August. Use plenty of power so as to produce a fine misty spray and cover the under side of the leaves thoroughly.



Spray of Leucothoë catesbæi



Three grades of nursery-grown *Rhododendron maximum* are produced: 1, Standard; 2, Specimen; 3, Super-Specimen. For prices of 2 and 3, see footnote

Illustrating the Three Grades

The illustration above of nursery-grown *Rhododendron maximum* is to call attention to the quality range, and to show that while the Specimen and Super-Specimen grades cost more, they also give more ground-cover, foliage, and attractiveness than the standard quality. The pictured plants are typical of the many-stemmed clumps that we offer in the several grades.

Indicating the vigor of the root system, we ask that you note the size of last year's growth of stem.

Prices are for clumps, and we point out that there is a distinction between quoting plants and quoting clumps. A comparison of different nursery catalogue prices means nothing unless the quality of the plants is considered.

We specialize in and give full attention to these several plants only, and we know that we have the quality, quantity, and facilities to serve you honestly and well.

The following list of prices for scheduled sizes are for standard quality, our selection.

Price-List of Nursery-Grown Stock

EVERGREEN

VARIETIES			12-15 inches	15-18 inches	1½-2 feet	2-2½ feet	2½-3 feet	3-3½ feet	3½-4 feet	4-5 feet	5-6 feet
<i>Rhododendron maximum</i> *	White, light pink.	July			\$3.00	\$3.25	\$3.50	\$4.25	\$5.00	\$6.00	\$7.50
<i>R. catawbiense</i>	Reddish purple	Late May			4.00						
<i>R. carolinianum</i>	Light rose, pink	Early May	\$2.75	\$3.00	3.25	3.75	4.50	5.50	6.50	8.00	
<i>R. carolinianum album</i>	White, blush-pink	Early May	2.50	2.75	3.00	3.50					
<i>R. minus</i> (true <i>Punctatum</i>)	Deep pink	Early July		2.75	3.00	3.50	4.00	5.00	6.00	7.50	10.00
<i>Kalmia latifolia</i>	White, pink	May	1.75	2.00	2.50	3.00	3.50	4.25	5.00	6.50	9.00
<i>K. angustifolia</i>	Deep pink	May		1.50	2.00						
<i>Leucothoe catesbæi</i>	White	Early May	1.35	1.50	1.75						
<i>Andromeda floribunda</i>	White	Late April	3.00	3.50	4.00	5.00					

Leiophyllum buxifolium. White-pink. May. 5 to 7 inches high, 40- to 50-sq. in. top spread, 75 cents; 60- to 100-sq. in. top spread, \$1.25.

**Rhododendron maximum*, 6 to 7 ft., \$10; 7 to 8 ft., \$15. Prices of larger plants on application.

DECIDUOUS

VARIETIES			15-18 inches	1½-2 feet	2-2½ feet	2½-3 feet	3-3½ feet	3½-4 feet	4-5 feet	5-6 feet	6-7 feet	7-8 feet
<i>Azalea arborescens</i>	White	June	\$2.25	\$2.50	\$3.25	\$4.00	\$5.00	\$6.00	\$7.50			
<i>A. calendulacea</i>	Brick-red, orange	Late May	2.25	2.50	3.25	4.00	5.00	6.00	7.50			
<i>A. vaseyi</i>	Delicate pink	May	2.00	2.25	2.75							
<i>A. viscosa</i>	White, light pink	July	2.00	2.25	2.75	3.25	4.00	4.50	5.50	\$7.00	\$8.50	\$10.00
<i>A. rosea</i> (canescens)	Deep pink	Late May	2.00	2.25	2.75	3.25	4.00	4.50	5.50	7.00	8.50	10.00
<i>A. nudiflora</i>	White, pink	Early May	2.00	2.25	2.75	3.25	4.00	4.50	5.50			
<i>A. canadense</i> (<i>Rhodora</i>)	Purplish rose	Late April	1.50	1.75								
<i>A. Menziesia</i> (<i>Menziesia pilosa</i>)	Pink-white	May	1.50	2.00	2.50							
<i>Vaccinium corymbosum</i>	White	May			1.75	2.25	3.00	3.50	5.00			

In lots of 50 or more of one variety a reduction of 10 per cent will be granted. Packing charges at cost.

Specimen quality 50 to 100 per cent in addition to above prices.

Super-Specimen quality 100 to 200 per cent in addition to above prices.

The collecting fields of Virginia and North Carolina are too far removed to permit of less than carload shipment in most instances. To meet that condition, we quote on a grade that we designate, for lack of a better name, "semi-nursery" stock. This covers transplanted collected stock that has been growing at Stroudsburg for less than two years. From such we select those that qualify for your order.

"Semi-nursery" stock is in foot series (instead of in 3-inch and 6-inch series as in the nursery-grown price list), and prices follow our selection.

Price-List of Semi-Nursery Stock

SPECIES			1-2 feet	2-3 feet	3-4 feet	4-5 feet	5-6 feet	6-7 feet	7-8 feet
<i>Rhododendron maximum</i>	White, light pink	July	\$1.50	\$2.25	\$3.00	\$3.50	\$5.00	\$6.00	\$9.00
<i>R. maximum</i> . Specimen	White, light pink	July	2.50	3.50	4.50	6.00	8.00	10.00	15.00
<i>R. catawbiense</i>	Reddish purple	Late May	2.50	3.00	4.00	5.00	7.50	10.00	13.50
<i>R. catawbiense</i> . Specimen	Reddish purple	Late May	3.50	4.50	6.00	7.50	10.00	15.00	20.00
<i>R. catawbiense compacta</i>	Reddish purple	Late May	3.00	4.50	6.50				
<i>R. carolinianum</i>	Light rose	Early May	1.75	2.50	3.00	4.00	6.00		
<i>R. minus</i> (true <i>Punctatum</i>)	Deep pink	July	1.75	2.50	3.00	4.00	6.00		
<i>Kalmia latifolia</i> (Mountain Laurel)	White, pink	Late May	1.25	1.75	2.25	3.00	5.00	7.50	10.00
<i>K. latifolia</i> . Specimen	White, pink	Late May	2.00	3.00	4.00	6.00	10.00	15.00	20.00
<i>Azalea canadensis</i> (<i>Rhodora</i>)	Purplish rose	Late April	1.00	1.25					
<i>A. rosea</i>	Deep pink	Late May	1.00	1.25	1.50	2.00	2.50	3.50	5.00
<i>A. viscosa</i>	White, light pink	July	1.00	1.25	1.50	2.00	2.50	3.50	5.00
<i>A. calendulacea</i>	Brick-red, orange	Late May	1.00	1.25	1.50	2.00	2.50	3.50	5.00
<i>A. nudiflora</i>	White, pink	Early May	1.00	1.25	1.50	2.00	2.50	3.50	5.00
<i>Vaccinium corymbosum</i> (High-Bush Blueberry)	White	May		1.25	1.50	2.00	2.50	3.00	5.00
<i>Leucothoe catesbæi</i>	White	Early May	1.00	1.50	2.00				

In lots of 50 or more a reduction of 10 per cent is allowed.

Stock specially selected at the nursery by the customer will receive special determination as to price. Packing at cost on both nursery and semi-nursery stock. This catalogue cancels all sales conditions and prices quoted previously.



A successful foundation planting of La Bars' nursery-grown Rhododendrons in lime soil. Residence of Paul C. Martin, Esq., Springfield, Ohio. Planting by Berryhill Nursery Company

527 Fifth Ave., New York, N. Y.

We take pleasure in this opportunity to say that Mr. W. K. La Bar, as representative of the La Bars' Rhododendron Nursery, has furnished us with collected and nursery stock for a number of years, and always with most satisfactory results. His unfailing courtesy, integrity and expert judgment have rendered our relationship a pleasure and a satisfaction. Yours very truly, VITALE, BRINCKERHOFF & GEIFFERT, L. A. November 21, 1923.



Shipping

The method and care used in baling the plants for shipment was illustrated above.

1. A *Rhododendron maximum* 4 feet high, with about same spread, fresh dug from the nursery—weight about 40 to 50 pounds.

2. Roots are covered with wet moss and securely bound with burlap; the plant is tied to a stick for protection.

3. The top is encased to prevent damage to the stems and leaves. Smaller plants go boxed, and the transportation cost when packed in this way is less than when baled.

The following list of key places in various states can be used in estimating the approximate cost of the freight or express charge from Stroudsburg, Pa. Rates are in cents per 100 pounds.



Rhododendron corolinianum
See page 11

	Carloads	Less Boxed	Carloads Baled	Express
Birmingham, Ala.	\$1.28	\$1.49	\$1.68	\$4.71
Hartford, Conn. . . . .	.38	.53½	.72½	1.80
Washington, D. C. . . . .	.38	.55	.76½	1.80
Atlanta, Ga.	1.22	1.42½	1.65½	4.30
Peoria, Ills. . . . .	.70½	1.11½	1.50	3.53
Indianapolis, Ind. . . . .	.59½	.93½	1.26	3.11
Louisville, Ky. . . . .	.64	1.00½	1.36	3.33
Baltimore, Md. . . . .	.32	.48	.66½	1.45
Brookline, Mass. . . . .	.38	.53½	.72½	2.14
Detroit, Mich. . . . .	.49½	.77½	1.05	3.11
Red Bank, N. J. . . . .	.34	.48	.66½	1.25
Patchogue, N. Y. . . . .	.35	.46½	.60	1.59
Rochester, N. Y. . . . .	.34	.48	.66½	2.14
White Plains, N. Y. . . . .	.38	.53½	.72½	1.59
Charlotte, N. C. . . . .	.88	1.08	1.28	3.19
Cleveland, Ohio . . . . .	.45	.70	.95	2.42
Columbus, Ohio . . . . .	.49½	.77½	1.05	2.70
East Liberty, Pa. . . . .	.37½	.58	.79	2.14
Harrisburg, Pa. . . . .	.32	.48	.66½	1.45
Philadelphia, Pa. . . . .	.28½	.39	.55½	1.25
Providence, R. I. . . . .	.38	.53½	.72½	1.94
Richmond, Va. . . . .	.47	.62½	.86½	2.14
Wheeling, W. Va. . . . .	.37½	.58	.79	2.28

After we receive the forwarding receipt from the transportation company, ownership passes to the purchaser, and goods travel at his risk. Claims for loss, damage, or delay occurring in transit should be made against the carrying company who are the cause of such loss, damage, or delay, and not unfairly against us. In event of such trouble, you should insist that the delivery agent state in writing, on your paid transportation receipt, the condition of the shipment and you should file claim with the proper officer at once. If you will mail a copy of such claim to us at the same time, we will assist in obtaining an early settlement, as we have a moral responsibility which we have no wish to avoid.

We are able to make auto truck delivery to points within 100 miles of Stroudsburg, Pa., at a reasonable charge. In such cases, the cost of boxing, cartage, and freight or express is eliminated, and the plants are delivered the same day they are dug, in better condition than if baled or packed in cases.



Plants delivered by auto truck arrive in better condition than if baled or packed in cases. Delivery radius, 100 miles from Stroudsburg

Collecting

We have been collecting these plants for twenty-two years, shipping this grade in carloads from the mountains of the Virginias and North Carolina, direct to an extensive and desirable patronage among leading ornamental nurseries, landscape architects, private estate owners, parks, and cemeteries.

This class of work we are keen for, as, taken in conjunction with the collecting of seedlings, roots, and plants, for propagating at our nursery, it requires and permits the maintenance of large and highly efficient organization all the year round. These are under the personal supervision of W. K. La Bar, in Virginia and North Carolina, and F. S. La Bar, in West Virginia. Our foreman and men are trained to select the proper quality of soil that is right to dig from. We know how to dig and to care for them, as well as how to pack for transit to the planter, so that they will be found in good condition on arrival.



Part of a collecting gang 6,711 feet above sea-level

Collected plants are new growths on old roots from burnt-over areas, and, due to overcrowding by underbrush and tendency to reach for light, the top growth may be more or less thin. In Azaleas, *Rhododendron minus*, *R. carolinianum*, and *Andromeda floribunda*, this is more pronounced. We advise, when the smaller size in these just-mentioned species is desired, the purchase of full nursery-grown plants.

Collected plants are fully suitable for the naturalistic effects that are usually achieved by massing or grouping. Specimens of such, or the nursery-grown grade, are more desirable for formal effects or foundation plantings.

18 E. 41st Street, New York, N. Y.

This past season Mr. Leavitt has inspected a great many of the estates which have been developed under our direction within the last few years, and he has noticed particularly the excellent condition of the stock furnished by your Nursery, especially the Rhododendrons. We believe this is due, to a large degree, to the personal supervision of your Mr. La Bar in selecting the stock and preparing it for shipment.

We take this opportunity to congratulate you on the prompt and efficient manner in which you have handled our orders. Assuring you of our appreciation, we are, Very truly yours, CHARLES WELLFORD LEAVITT & SON, L. A.

All the species or varieties are not native of the same section, and the following table shows kinds that can be sent in one car from the several collecting fields.

FROM NORTH CAROLINA

Rhododendron maximum
Rhododendron catawbiense
Rhododendron carolinianum
Kalmia latifolia
Azalea calendulacea
Azalea nudiflora
Leiophyllum buxifolium

FROM VIRGINIA

Rhododendron maximum
Rhododendron catawbiense
Kalmia latifolia
Azalea calendulacea
Azalea nudiflora
Azalea rosea

FROM WEST VIRGINIA

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We frequently send in the same car, shipments for several persons who have clubbed together to buy collected stock. The difference in freight alone, as between carload and less than carload rates is considerable on this class of material, and, together with difference in cost of carload as against less than carload, effects a substantial saving for them.

We will be glad to give information as to prices, approximate number that can go in a car, freight cost, etc., regarding this class of our output, if you will give us some idea of what you have in mind.

The collector has sometimes been criticised unduly, it being alleged that his activities would ultimately mean the extinction of these plants. Not one-half of one per cent of the diminution can be rightly charged to the collector, but rather to the indifference of the timber cutter and to forest fires. The discriminating collector is only satisfied with plants that meet particular specifications, both as to quality and soil, and as a result his toll is only one of ten under the best conditions.

Directions for Planting and Care

The ideal season of planting for this family of plants is from the time frost is out of the ground in the spring until new growth starts; again in the fall after the new growth has hardened, usually beginning in late August, for a period of six weeks to two months. We would not advise planting in the late fall, say within a month of time winter closes in, unless it be done by an experienced plantsman. These observations are for sections north of the Mason and Dixon Line.

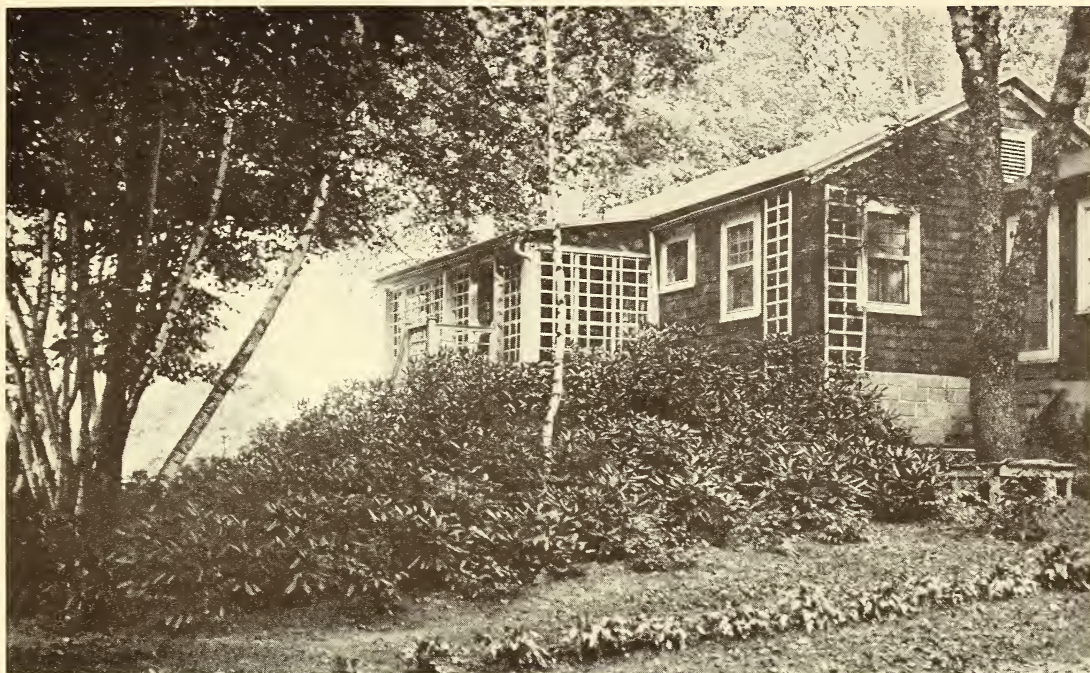
As soon as the plants are received, unpack and water them, but as they may be tender from several days' confinement, do not expose them at once unnecessarily to the full sun and wind, which might cause burning.

The future success or failure of the plant depends on the soil and drainage, as so painstakingly set forth on previous pages, and the manner of planting is given briefly, bearing in mind prior observations.

1. Deep porous soil, with good drainage, is essential, as water must not stagnate and make sour ground.
2. Use any soil free from lime, but preferably that rich in vegetable matter, or woods leaf-mold (peat).
3. Plant to the same depth as ball of earth shows, as this family of plants are surface feeders. Press soil firmly, but be careful not to pack it, or press too hard, as by so doing the fibrous roots may be torn from the main stems. Avoid air-pockets under the plant. Do not "hill" around them, but rather leave a shallow pocket to retain the water until it can soak away.
4. Mulch with leaves, old hardwood sawdust, or any well-rotted vegetable matter, to keep surface cool in summer, warm in winter, and to retain moisture.
5. Water abundantly when first planted, and whenever the ground approaches dryness.
6. Do not hoe, but pull the weeds.



Kalmia latifolia



This planting about the Nursery Manager's residence proves his conviction that Rhododendrons are always effective

RHODODENDRONS

Rhododendron maximum. Rosebay. A magnificent plant attaining great height and breadth with age; the best by far for mass effects. The beautiful, luxuriant, dark green leaves are narrow-oblong in shape, 6 to 12 inches long. Light pink or white flowers are borne profusely in large clusters in July. Habitat, Georgia to New England and New York.

Rhododendron catawbiense. Catawba Rhododendron. One of the most beautiful of our hardy, native flowering shrubs. Reddish purple flowers, 1½ inches across, borne in large trusses, in late May. The bright green foliage is glaucous beneath and clusters at the end of the branches. Thrives in sun and shade. Habitat, the highest, coldest peaks of the Alleghanies, Georgia to Virginia.

Rhododendron catawbiense compacta. This is a dwarf form of the above, dwarfed because of constant exposure to sun, wind, and lack of moisture, which makes it entirely desirable for planting in exposed situations. Plants broader than tall, feathered to the ground. Foliage smaller and stems more woody than in the Catawba.

Rhododendron carolinianum. Carolina Rhododendron. The most beautiful American Rhododendron. In early May, light rose-pink, funnel-shaped flowers, 1 inch across, are borne in great profusion in five- to ten-flowered clusters. The foliage is rich dark green, rusty on the underside



Specimen quality clump of *R. catawbiense*, 18- to 24-inch size; shipping weight, 20 pounds. The large ball insures growth and the many stems abundant blooms.



Rhododendron carolinianum album. One of the most profuse-blooming American shrubs heretofore available in limited quantities. We have a supply of shapely, compact, nursery-grown plants.

ing such compact plants as the others, but still very attractive. Many dark rose to deep pink flowers are produced in early July. The foliage is similar to the Carolina Rhododendron but slightly larger. The stems of the new wood are maroon-red, an attractive feature. Will stand shearing. Habitat, the high North Carolina Mountains. See illustration, page 13.

and thick set, which, with the deep red stems of the new growth, produces a very handsome effect. Prefers sunny situations but thrives in shaded or exposed locations. Habitat, the high Blue Ridge cliffs of North Carolina. See illustration, page 8.

***Rhododendron carolinianum album*.** White Carolina Rhododendron. The most profuse-blooming native American shrub. Just before the pink type blooms, this white form is a mass of the most beautiful white flowers imaginable, some of which are delicately suffused with blush-pink. Heretofore available in extremely limited quantities of collected plants only. We are offering, for the first time, shapely, nursery-grown plants that at first glance indicate their true worth and beauty. It is not yet available in other nurseries. The White Carolina Rhododendron is bound to become as popular an outdoor plant as the Indian Azalea was a greenhouse plant before the plant embargo shut it out. Those living at great distances, like the South and Northwest, may enjoy these beautiful plants, for they thrive in almost any situation and climate. Because of their compactness and light weight, the transportation charges will be much less than on the larger kinds.

***Rhododendron minus* (true Punctatum).** Piedmont Rhododendron. A rapid grower not forming such compact plants as the others, but still very attractive. Many dark rose to deep pink flowers are produced in early July. The foliage is similar to the Carolina Rhododendron but slightly larger. The stems of the new wood are maroon-red, an attractive feature. Will stand shearing. Habitat, the high North Carolina Mountains. See illustration, page 13.

See Price-Lists on pages 6 and 7



Rhododendrons in more or less formal landscaping on grounds of Mr. H. Fletcher Brown, Wilmington, Del. Charles Wellford Leavitt & Son, Landscape Architects, New York, N. Y.; Roman Landscape Contracting Co., planters, New York, N. Y.

Other Broad-Leaved Evergreens

Kalmia latifolia. Mountain Laurel. One of the most ornamental shrubs in cultivation, and, by liberal use, the most enchanting effects can be produced. In late May and early June it is literally covered with pure white to pink wheel-shaped flowers. The glossy, dark green foliage lighter beneath, is attractive at all seasons. Habitat, Florida to Nova Scotia.

Kalmia angustifolia. Lambkill. Similar to the above, but growing only 1½ to 2 feet high, with light green foliage and very deep rose flowers in May. Habitat, Hudson Bay to Georgia.

Leucothoë catesbæi. Drooping Leucothoë. One of the most graceful evergreen shrubs. The dark, shiny green foliage is evenly disposed on gracefully arching branches from which are pendent many densely packed racemes of bell-shaped, white flowers, early in May. The foliage turns a beautiful bronze in the fall when exposed



A 12- to 15-inch *Leucothoë catesbæi*; weight 3 pounds. A graceful shrub that has beautiful bronzy foliage all winter.

to the sun, making it an attractive winter decorative plant. A most desirable under-shrub, preferring shade or partial shade, but will succeed in sunny situations provided there is plenty of moisture available. Habitat, mountains of North Carolina.

Andromeda floribunda (*Pieris floribunda*). Mountain Andromeda. The rarest and one of the most desirable American evergreens. Low, compact plants, with shiny dark green foliage that is surmounted in late April with dense, pyramidal spikes of lily-of-the-valley-like flowers. The flower-buds appear in early fall, giving the appearance of bloom throughout the winter. Habitat, Alleghany Mountains, Virginia to Georgia.



Rhododendron minus (true *Punctatum*), showing type of specimen plant. Good ball with many fibrous roots and an abundance of stems. Size 2 to 2½ feet; shipping weight 40 pounds. See description, page 12.

Leiophyllum buxifolium. Box Sand Myrtle. A most desirable dwarf evergreen shrub for ground-covers, edging, window-boxes, and rockeries. The foliage is similar to, but smaller than, boxwood. Dense corymbs of white flowers are so abundantly borne in May as to almost hide the foliage. Habitat, pine barrens and mountains in New Jersey to Florida. See illustration, page 14.



Andromeda floribunda. Rare, but one of the most desirable native evergreens; glossy dark green foliage, with pyramids of white flowers in late April.



Azalea rosea, 2 to 2½ feet; weight 40 pounds. A fair sample of the specimen-grade *Azalea*. These many-stemmed plants are better than those ever offered before.

Our Native Azaleas

Azalea arborescens (*R. arborescens*). Sweet *Azalea*. Exceedingly spicy and fragrant white flowers borne in June after the foliage, which in late autumn turns to a beautiful, striking shade of red, orange and bronze. Habitat, southern Alleghany Mountains.

Azalea calendulacea (*R. calendulaceum*). Flame *Azalea*. Of all the *Azaleas* hardy in the North, none equals this one in beauty. The colorful, 2-inch, nearly odorless flowers are contrasted with the well-grown leaves, making it superior to all the others, with the possible exception of *Vaseyi* which blooms before the leaves appear. The color varies from yellow-red to orange-red, flame-red, and cream. Fall foliage shades of red, yellow, and bronze. Habitat, North Carolina and Virginia.

Azalea Vaseyi (*R. Vaseyi*). Pink Shell *Azalea*. A most brilliant and attractive *Azalea*. A profusion of delicate pink flowers are borne in early May before the foliage appears. Deep rich tones of vinous red and crimson are assumed by the foliage in the fall. Habitat, highest peaks of the Blue Ridge Mountains of North Carolina.

Azalea viscosa (*R. viscosum*). Swamp *Azalea*. The latest *Azalea* to bloom. The fragrant white or delicate light pink flowers appear in July. The shiny green foliage turns to bronze in the fall, and is the last *Azalea* to lose its leaves. Habitat, the Atlantic States.

Azalea rosea (formerly confused with *R. canescens*). Downy Pinxter Bloom. The most beautiful of all the rose-colored or pink-flowered *Azaleas*, and rare in cultivation. The beautiful rose-tinted flowers open in late May, after the leaves begin to unfold, and are more fragrant than *A. viscosa*. Makes formal, symmetrical plants. The foliage assumes beautiful red and yellow tones in the fall. Habitat, New England to Virginia.

Azalea nudiflora (*R. nudiflorum*). Pinxter Bloom. The fragrant, rose-pink or white flowers open in great numbers before or with the unfolding leaves, a few days before *A. rosea*. It is a very attractive species, sharing the glory of the garden with *A. rosea*. Fall foliage very attractive shades of orange and bronze. Habitat, the Atlantic States.

Azalea canadensis (*Rhodora canadensis*). *Rhodora*. The first American *Azalea* to bloom, opening late in April. The 1½-inch purple flowers are borne in clusters, before the foliage appears. Habitat, Newfoundland to Pennsylvania and New York. In the northern part of this territory large areas of swampy land are turned to sheets of magnificent color in spring by the *Rhodora*.

Azalea Menziesia (*Menziesia pilosa*). *Menziesia*. An interesting plant for rockeries. Rich deep green foliage with golden-colored markings at the tips of the leaves. The small, pinkish white, nodding, bell-shaped flowers are borne in terminal clusters in May. Habitat, Pennsylvania to Georgia.



Box Sand Myrtle (*Leiophyllum buxifolium*). A boxwood-like plant that bears many clusters of white flowers in May. Most desirable as a ground-cover; thrives in porch-boxes, rockeries, and similar places. For description, see page 13.



High-Bush Blueberries have drooping clusters of white flowers in May, blue-black berries in August, the most brilliant scarlet fall foliage, and beautiful winter effects from the red and green twigs.

Vaccinium corymbosum **HIGH-BUSH BLUEBERRY**

One of the best decorative shrubs for the North. Beautiful, white, bell-shaped flowers in drooping clusters in May, followed in August by an abundance of edible, blue-black fruits. In the fall the brilliant scarlet foliage is unsurpassed by that of any other shrub, while the red and green twigs brighten the garden in winter when colors are scarce. Habitat, northeast North America.

It is far from our intent to make this catalogue purely an exhaustive treatise covering all phases of development of these plants. If we have seemingly done that, in our zeal to give information designed to make successful plantings under all conditions over a wide range of territory, then we ask your pardon. Our efforts are solely and unselfishly in the interest of these native American plants. We are interested in their success, despite their source, and we well realize that every success is an advertisement and every failure a stumbling-block in the path of appreciation and increased use. We supply freshly dug

plants of proper quality that will grow if given the fighting chance, which is afforded if you will follow the suggestions that suit your immediate situation and location. If you have heretofore failed with these plants, we ask that you withhold your final judgment until you have tried our stock, planted with regard to suggestions of this catalogue.



A planting of *Rhododendron catawbiense* in full sun, showing profuseness of bloom. This variety is the parent plant of many of the hardy hybrids



A portion of the Boxwood we have accumulated at the Nursery. Sizes 2 to 11 feet. Inspection invited. Prices on application

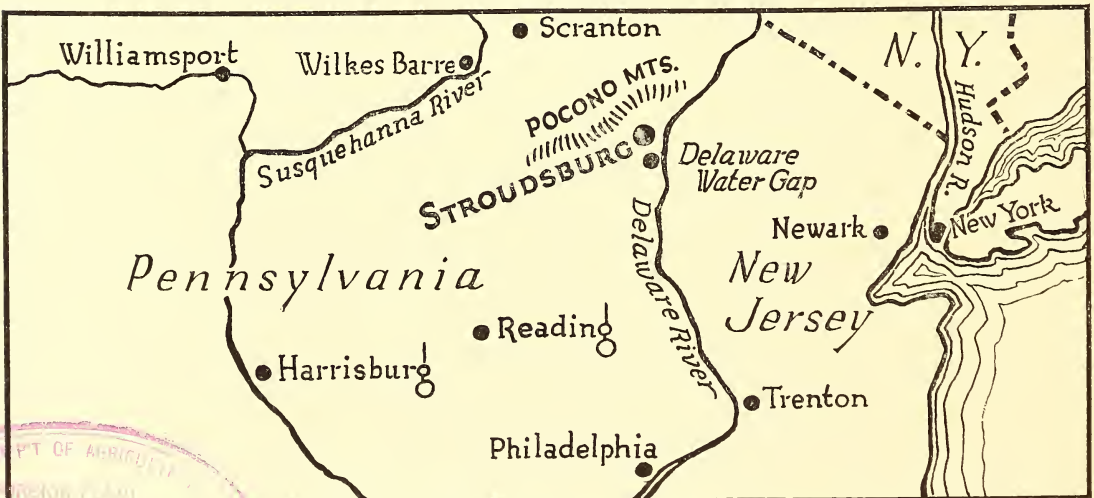
How to Reach Our Nursery

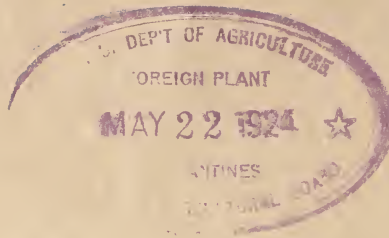
You are cordially invited to visit the nursery before placing your order. Our nursery of 133 acres is ideally located on a northern slope on the outskirts of Stroudsburg. Here the various Rhododendrons and other plants are arranged in the environment best suited to them, with the whole general effect and beauty greatly enhanced by numerous white birches interposed here and there as a contrast to their evergreen foliage.

Stroudsburg is the center of the Pocono Mountain and Delaware Water Gap resort section, and is two hours from New York by the Delaware, Lackawanna and Western Railroad, and three and one-half hours from Philadelphia, by the Pennsylvania Railroad. It is on the "Lackawanna Trail," the main highway from Philadelphia and Easton to Scranton. Consult the Blue Book for excellent motor routes. A welcome awaits you.

W. K. LA BAR
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R. HARMON

LA BARS' RHODODENDRON NURSERY Stroudsburg, Pa.





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